



OFFICE OF THE PRIME MINISTER'S CHIEF SCIENCE ADVISOR

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Sir Peter Gluckman's address to open the NZ Embassy science reception in association with the AAAS Meeting in Washington DC February 10 2016

Ladies and gentlemen,

I am delighted to welcome you to this reception. There are many distinguished guests here from across the US administration and science systems as well as from other countries with which we have a close relationship. I particularly acknowledge Dr Vaughan Turekian, Science Advisor to the Secretary of State, who will make some remarks later.

New Zealand is a small advanced economy - challenged or privileged, depending on one's point of view - by its isolated geographical position. But those two challenges of size and geography make it even more important that New Zealand plays its part in the global scientific enterprise. Indeed New Zealand is increasingly recognizing the importance of science not only for its domestic interests but also in dealing with global issues.

So while it might initially seem a little paradoxical, it is highly appropriate that we celebrate our partnership with the world's scientific superpower at a meeting of the AAAS, whose theme is *Global Science Engagement*.

New Zealand and the United States have been partners in scientific research for a very long time. Our Treaty-level Science & Technology Cooperation Agreement was first signed in the 1970s, and refreshed in 1991. We share a commitment to finding science-based solutions to global challenges, such as the many challenges in infectious and non-communicable diseases, and natural hazards and disasters like earthquakes, volcanoes, and extreme climate events.

The short presentations this evening provide a sampling of some of the research areas in which New Zealand and the United States work together. They cover the five research themes of the 2014-2016 Joint Commission Meeting (JCM), held under the NZ-US Science and Technology Cooperation Agreement. The first two - Oceans and Marine Research and Climate Change Monitoring, and Research and Services in the Pacific - will be presented by New Zealand's National Institute of Water & Atmospheric Science (NIWA) - a longtime partner of NOAA - and highlight collaborative work on Climate Change, including ocean acidification and sustainable fisheries. These were two of the three themes of the 'Our Ocean' Conference convened by Secretary of State Kerry in 2015, and attended by New Zealand's Minister of Foreign Affairs.

The other three themes are the science of Natural Hazards and Resilient Cities, Invasive Species, and Health, particularly non-communicable diseases in the Pacific.

But our scientific partnership extends beyond these five areas and I want to highlight two that are truly at the heart of a remarkable partnership between our two countries.

Our relationship in Antarctica extends back over 70 years – it is a very intertwined relationship both scientifically and logistically. Peter Beggs, Director of Antarctica NZ, will present on the longstanding Antarctic science collaboration between New Zealand and the United States. New Zealand continues to enhance its research commitment in the deep south, recognising its importance to the global climate system and marine food chain.

In climate change, we are like-minded members of multilateral initiatives such as the recent Paris Agreement at COP21. The Global Research Alliance on Agricultural Greenhouse Gas Emissions (or GRA) was an initiative first conceived by New Zealand but supported strongly from the outset by the US and which now has 45 countries as members; with scientists actively engaged in research to reduce that 20-25% of global emissions associated with food production while seeking to improve productivity. New Zealand continues to provide the secretariat for the GRA. It is a scientist-driven initiative with many dimensions that are detailed in one of the displays. In Wellington in 2010, I had the privilege of co-chairing the initial meeting that established the alliance - and I remain impressed with the progress that the scientists have made. It has demonstrated how countries can work together in science at a global level and of global import even though most science funding is jurisdictional in nature. I suggest it is a model of how countries can work together in science to address major issues without creating complex management structures. I would also suggest it is an example of the convening power of science even from a small country. I acknowledge Dr. Woteki who is currently chair of the GRA.

But beyond the GRA New Zealand is committed to capacity building in agriculture and climate in developing countries, especially with regard to monitoring and creating nation-specific options for mitigation. There is great potential for synergy with the US. Already we have a partnership with the Climate and Clean Air Coalition, which is a UNEP programme funded largely by the US State department that aims to help developing countries reduce emissions but increase productivity from livestock

There are a number of other displays; for example one highlighting our unique biological heritage and the scientific challenges associated with protecting and conserving this heritage. New Zealand's unique flora and fauna have evolved after 80 million years of geographical isolation. This is one of 11 areas of research, what we have termed National Science Challenges, which the Government funded after extensive public consultation – an experiment in itself.

The research profiled tonight reflects New Zealand's unique role in the Pacific, and our commitment to providing leadership and meaningful aid to the developing island states of the South Pacific. These countries have a common set of issues where science can play a part, including sustainable management of fish stocks, responding to natural disasters, protecting biodiversity, and coping with high levels of non-communicable disease.

The research reflects our unique geographical location, as the gateway to the Antarctic and the Southern Ocean. It reflects the experience and expertise we've built from our location at the junction of two tectonic plates, on the Pacific rim of fire. Many of the most significant environmental challenges that we face involve the global commons - such as Antarctica, the oceans, and climate change. We know that science can make a vital contribution towards solving those complex challenges.

But you will also hear about research that reflects our concerns and strengths as an island nation, committed to free trade, but also to maintaining the very highest levels of biosecurity for imported products. Our economy is still substantially based on the export of high quality and safe food products, to Asia-Pacific and beyond, and we contribute strongly to international forums to ensure that science-based standards underpin global trade.

Again, we are delighted to have this opportunity to profile some of our research activities with the United States - we may be a very small part of a very large scientific enterprise but we are focused and are committed to the dual pillars of excellence and impactful research. We know our contribution can be magnified enormously by international collaboration. Equally we hope that by focusing our formal partnerships in science with the United States we can create true synergies that benefit both our nations and beyond.

Thank you.